State of California
AIR RESOURCES BOARD

Small Off-Road Engine Evaporative Emission System Components

Executive Order Q-12-017
Fluid Routing Solutions
Fuel Hoses

WHEREAS, Pursuant to California Health and Safety Code, sections 39600, 39601, and 43013, the California Air Resources Board (ARB) has established a certification process for evaporative emission system components designed to control gasoline emissions from small off-road engines, as described in California Code of Regulations, title 13, section 2767.1;

WHEREAS, Pursuant to California Health and Safety Code, section 43013, ARB has established criteria and test procedures for determining the compliance of evaporative emission system components with the design requirements in Cal. Code Regs., title 13, section 2754;

WHEREAS, Pursuant to Cal. Code Regs., title 13, section 2767.1, ARB Executive Officer may issue an executive order (EO) if he determines that the small off-road engine evaporative emission system components conform to the applicable performance requirements set forth in Cal. Code Regs., title 13, section 2754; and

WHEREAS, Pursuant to California Health and Safety Code, sections 39515 and 39516, ARB Executive Officer issued EO G-05-008 delegating to the Chief of ARB Monitoring and Laboratory Division (MLD) the authority to certify small off-road engine evaporative system components.

NOW, THEREFORE, I, Alberto Ayala, Chief of MLD, find that the Fluid Routing Solutions FluidPerm fuel hoses conform with the performance requirements set forth in Cal. Code Regs., title 13, section 2754, when tested at a constant temperature of 40° C, pursuant to SAE J1527 and GM9665P which have been deemed to be equivalent to SAE J1737, using an approved test fuel of Phase II California Reformulated Certification Fuel.

IT IS ORDERED AND RESOLVED that the Fluid Routing Solutions FluidPerm small off-road engine fuel hoses identified in Table 1 are certified for use in small off-road equipment.

Table 1
Dimensions and Tolerances for Fluid Routing Solutions FluidPerm Fuel Hoses

Nominal Inside Diameter(s) and Tolerance (inch)	Minimum THV Barrier Thickness (inch)
0.250 or greater ± 0.016	0.005 ± 0.001

IT IS FURTHER ORDERED that Fluid Routing Solutions shall provide a warranty to equipment manufacturers purchasing the FluidPerm fuel hoses. The warranty must conform to the requirements of Cal. Code Regs., title 13, section 2760.

IT IS FURTHER ORDERED that the certified Fluid Routing Solutions FluidPerm fuel hoses shall be installed in accordance with the manufacturer's installation and use instructions for Fluid Routing Solutions FluidPerm fuel hoses. A copy of this EO and fuel hose installation and use instructions shall be provided to manufacturers purchasing Fluid Routing Solutions FluidPerm fuel hoses for installation on small off-road engines and equipment introduced into commerce in California.

IT IS FURTHER ORDERED that Fluid Routing Solutions FluidPerm fuel hoses introduced into commerce in California shall be clearly identified by a permanent identification that allows ARB to identify the manufacturer's name, EO number, and model number.

IT IS FURTHER ORDERED that any alteration to the fuel hoses certified hereby is prohibited. Any alteration or modification of the design approved by this EO will require the manufacturer to apply for a new EO.

IT IS FURTHER ORDERED that the Fluid Routing Solutions FluidPerm fuel hoses shall be compatible with fuels in common use in California at the time of certification and any modifications to comply with future California fuel requirements shall be approved in writing by the Executive Officer or Executive Officer's delegate.

IT IS FURTHER ORDERED that the component certification of the Fluid Routing Solutions FluidPerm fuel hoses can be referenced in certification applications for small off-road engines and equipment that use small off-road engines, unless the Executive Officer finds that the Fluid Routing Solutions FluidPerm fuel hoses no longer meet the performance requirements set forth in Cal. Code Regs., title 13, section 2754 when tested pursuant to Cal. Code Regs., title 13, section 2765.

Executed at Sacramento, California, this 8th day of October 2012.

Alberto Ayala, Ph.D., M.S.E.
Chief, Monitoring and Laboratory Division